

Demonstration and Sentinel Surveillance System for Ongoing and Continuous Monitoring of PPE Usage by Healthcare Workers (HCW) in the US.

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Project Goals

- Determine the feasibility to identify, describe, develop, pilot, monitor and evaluate PPE surveillance systems used in a medical center setting.
- Track activities, resources and outcomes related to PPE and other infection control measures that would be used to control nosocomial transmissions of infectious diseases.
- Predict and track infectious disease outbreaks.
- Monitor indicators of PPT intervention strategies to record severity and duration of outbreaks.
- Assess the effect of enhancing timely PPE interventional response.

Background

- The IOM Committee on PPE submitted in 2007 that during Pandemic Influenza HCWs will feel more secure only when PPE usage is as safe and effective as vaccines and medications.
- The value of monitoring and evaluating the activities and resources regarding PPE use among HCWs and safety prevention programs in major hospital systems has not been formally assessed.

Stakeholders

- HCWs
- MANUFACTURERS
- AIHA
- HEALTHCARE FACILITIES
- OSHA
- ISEA
- ASTM



Partnerships

- VANDERBILT UNIVERSITY HOSPITAL SYSTEMS (VUHS)

Methods

- Establish an ongoing, continuous surveillance system in major hospital systems to function as a demonstration and sentinel system for PPE usage by HCW in the US.
- Provide full time infectious disease nurse/epidemiologist/program manager.
- Monitor the PPE (e.g. respirator) selection, use, fit, supplies, defects, audits, recalls and effectiveness in each of the selected facilities among healthcare workers; especially workers with direct patient care.
- Conduct a daily and ongoing active and passive surveillance using a standardized format and questionnaire.
- Data collected from self reports, audits, observational reports, compliance monitoring/evaluation, hazard prevention programs evaluation and disease transmission or non-transmission monitoring will be used for analysis and trending.
- The Early Aberration Reporting System (EARS) developed by CDC will be used to collect and analyze the data and monitor for trending and aberrant events.
- Data collected daily will be compiled on a weekly basis.
- When an event of interest occurs (e.g. lapses or disease transmission), investigation is initiated by the project officer.



Steps

- Formalized Collaborations:
- Obtained Funding Approx. \$400,000
- Enhance existing PPE inventory and use monitoring systems at partner facilities
- Pilot system at Vanderbilt.
- Roll the system out to 3 Large Hospital Systems in the Third year and beyond.

Expected Outputs

- Describe/Document the evaluation and monitoring of PPE: selection, usage, non-usage, defects, fitting, periodicity and effectiveness of the respirators in the hospital environments.
- A functioning model that ensures hospitals are better prepared for Pandemic Influenza and other disasters (natural or man-made).
- Disseminate the findings in professional journals and present at appropriate conferences.

Expected Outcomes

- Enhance timely interventional response during disasters such as Pandemic Influenza from hospital to hospital.
- PPE policies and standard operating procedures for first receivers (HCWs) and responders nationwide.

Disclaimer

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